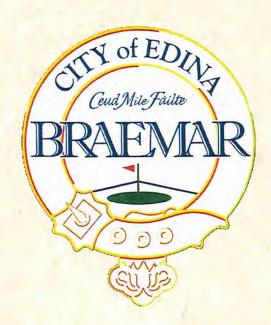
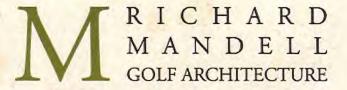
# Braemar Golf Course City of Edina, Minnesota Alternative Renovation Options



May 5, 2015



# Golf Course Tree Management Plan

RICHARD MANDELL GOLFARCHITECTURE

Assessment of all the trees on site for possible removal, replacement, pruning and/or further investigation.

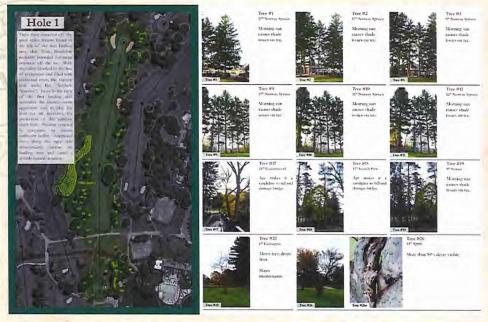
The process involves marking trees based on six primary considerations:

- Golfer safety
- · Tree health
- Environmental concern
- Golf course conditioning
- Strategy & playability
- Aesthetics









### Golf Course Renovation Business Plan



#### Detailed analysis with concrete solutions, timing, costs

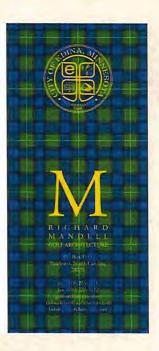
- Golf course walk-throughs and focus group discussions.
- Detailed analysis of all aspects of the golf course (tees, fairways, hazards, greens, rough, trees, cart path, water bodies) in terms of maintenance, operations, playability, strategy, environment, aesthetics.
- Prioritized solutions for each challenge identified:
  - Immediate (IM)
  - Mid-Term (MT)
  - Long-Term (LT)
- Detailed cost estimates.
- Alternative routing solutions.



BRAEMAR GOLF COURSE

EDINA, MINNESOTA
PREPARED FOR: CITY OF EDINA, MINNESOTA

RENOVATION BUSINESS PLAN REPORT



## RICHARD MANDELL GOLFARCHITECTURE

#### September Walk - Throughs

RMGA conducted 6 focus group discussions and course walk-throughs with:

- Braemar Golf Course Renovation Task Force
- Four groups of golfers of all ages, abilities, and gender.
- Operations and maintenance staff.
- Environmental consultants and agency officials.









## RICHARD MANDELL GOLFARCHITECTURE

#### Walk - Through Findings

- The opening holes of the Castle nine set a very difficult tone for the golfers in terms of playability. The Castle nine is almost 400 yards longer than both the Hays and Clunie nines.
- The golf course is too long and too narrow for the majority of women golfers. There are numerous forced carries and the rough is too deep for the ladies as well.
- The water features are surrounded by invasive species and are concealed by tall plants which create an unfair carry for the lesser-skilled golfers.
- Numerous drainage issues make the golf course wet for golfers and much longer-playing than the yardage reflects.
- Multiple fairways have water-holding soils and/or lack topsoil to effectively grow a proper stand of turf for golf.
- · Fairways are very bumpy due to drainage issues and heaving of underlying soils.
- Fairways and approaches are too narrow. Fairway lines do not reflect the natural topography of the land.
- Forced carries, narrow fairways, tree encroachment, and deep rough are primary contributors to slow play.

## RICHARD MANDELL GOLFARCHITECTURE

#### Clunie Nine Walk - Through Findings

- Rounds at Braemar fell when the Clunie nine was built because golfers did not like playing it and were upset their round would include the Clunie nine and not the original 18. As a result, it became more of an overflow nine instead of a third nine of comparable golf.
- The Clunie nine was not accepted by older golfers due to the difficult elevation changes and difficult walks.
- The Clunie nine is much more narrow with more forced carries, especially for the women.
- There are many penal bunkers that make each fairway even more narrow.
- The vegetation lining the water features blocks the view of many holes and require higher than necessary shots to be played over them, creating a more difficult challenge for women and beginners.
- The majority of holes are wetter than the original holes because they were built in the flood plain with little drainage over poor soils. The tees for holes 24, 26, and 27 were built with pond muck. Holes 23, 24, 26, and 27 never had a layer of topsoil added and still do not have quality grass.



#### **Understanding of Environmental Constraints**

- Review of wetlands and establishment of 60' wetland buffer worst-case scenario.
- Understand that flood plain challenges can only be addressed in the grading process regardless of scope of work.
- Understand previous COE permits and work to avoid those issues.
- Review Oak Woodland/Savanna challenges.

## RICHARD MANDELL GOLFARCHITECTURE

#### **Oak Savanna Restoration**

- Two areas within Braemar Park (totaling 29.13 acres) to the west are considered Oak Savanna. Specifically two smaller parcels within these areas (totaling 9.15 acres) known as Parcels A (3.85 acres) and B (5.30 acres) are designated as mitigation areas to be "maintained as natural areas" by the USACE as part of the permit agreement for the development of the Clunie nine in 1992.
- An Oak Savanna is a wooded area dominated by Oak species in which less than 50% of the ground area is exposed to the sun at noon in midsummer.
- At Braemar, much of the original Oak Savanna has transitioned into Oak Woodland due to elimination of grazing and fire. In most areas, the oak canopy has closed in and other tree species have filled in canopy gaps.
- The best indicator of a former Oak Savanna is the presence of historically visible open-grown oaks found within an
  existing Oak Woodland. Open-grown oaks are recognized by the presence of intact lower limbs spreading to the
  ground.
- Oaks without these lower limbs present typically have been surrounded by other trees in such a crowded way that
  the lower limbs were not allowed to grow as nature intended, mostly due to inadequate sunlight, and are indicative
  of an original Oak Woodland.

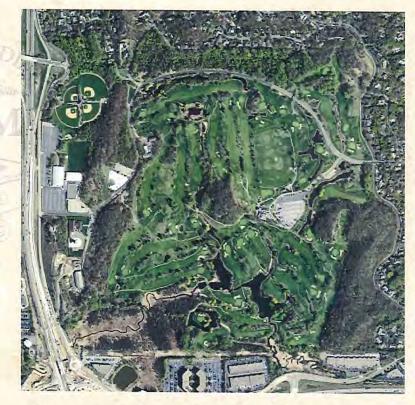
#### RICHARD MANDELL GOIFARCHITECTURE

#### Oak Savanna Restoration

In 1947, the 445-acre parcel of Braemar Park included 1,843 individual trees dispersed across the site with an average spread of 40' that remained untouched from agricultural clearing. Most of the original native herbaceous layer was likely eliminated by cattle grazing.



Braemar Park in 1947: 13.60% Tree Canopy 60.65 acres of trees



Braemar Park in 2012: 38.26% Tree Canopy 170.27 acres of trees

## RICHARD MANDELL GOLFARCHITECTURE

#### RMGA Design Goals: Ecological Enhancements

- Implement Barr Engineering's Natural Resources Information Summary (Feb. 2015) as much as possible.
- Restore wetland buffers as appropriate in areas that do not slow play by eliminating invasive species and establishing appropriate pollinator plantings.
- Increase wetland buffers as much as possible (beyond the mandated limits) which will not negatively impact the golf course playing areas.
- Restore the Oak Woodland to the east of the golf course by removing invasive species such as Buckthorn and restoring appropriate understory plantings of native sedges, forbs, and grasses with specific areas of wildflower plantings no taller than two to three feet.
- Restore the Oak Woodland to the west of the golf course by the same process.
- Develop areas within the golf course to restore Oak Savanna with the planting of Bur Oaks, Northern Pin Oaks, Red Oaks and Shortgrass Woods Edge Savanna Seed Mix.
- Provide a woodland and savanna maintenance budget and staff separate from the golf course maintenance budget to regular maintain these areas as part of a long-term management plan.
- Develop signage within Oak Savanna areas and alongside wetland buffers available to golfers as well as others for educational purposes.

TRADITION ♦ ENJOYMENT ♦ CHARACTER ♦ PASSION

# Renovation Business Plan Timeline RMGA General Design Goals



- · Do not fill wetlands.
- Utilize 60' wetland buffers.
- Avoid SW corner of property due to poor growing conditions.
  - Sunlight, soils, air circulation.
- Widen fairways.
- Tee Shot Distance Equity.
- Improve golf feature infrastructure.
- Introduce additional uses:
  - Environmental Education Area.
  - Multi Use Areas for Disc Golf, Fling Golf, Foot Golf, field games, water
  - activities and sledding or tubing.
  - · Picnic areas.
  - A walking trail network surrounding the park with sufficient safety buffers from golf course playing areas.



# January Presentation of Preliminary Concepts To Golfers & Park Board

- Concept A Improvements to Castle & Hays Nines with New Regulation Clunie Nine.
- Concept B Improvements to Castle & Hays Nines with Original 18th Hole & New Regulation Clunie Nine.
- Concept C Improvements to Castle & Hays Nines with Original 18th Hole & New Executive Clunie Nine.
- Concept D New Eighteen Hole Regulation Golf Course.

# Renovation Business Plan Timeline Further Development of Preliminary Options



- Option 1 The Best 27 Regulation Holes Possible.
- Option 2 The Best 27 Regulation Holes Possible with Minimal Disturbance.
- Option 3 The Best 18 Regulation Holes & Executive 9 with Minimal Disturbance.
- Option 4 New Eighteen Hole Regulation Golf Course.
- Option 5 New Eighteen Hole Regulation Golf Course with Minimal Disturbance.
- Option 6 New Eighteen Hole Regulation Golf Course and Four-Hole Practice Loop with Minimal Disturbance.

# March Presentation of Preliminary Options To Task Force & City Council

#### RICHARD MANDELL GOIFARCHITECTURE

#### Completion of Renovation Business Plan

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TRADITION + ENJOYMENT + CHARACTER + PASSION

#### Completion of Renovation Business Plan





#### EXISTING HOLE

#### PAR 4

#### PROPOSED HOLE #1

PAR 5

#### DESIGN ISSUES:

- The hole amountly planed as a per few with the back test least do risk hill the brought to their curron position in 19%. The hole in a pair for few reason aper fine few waters. Hole men's to be a berne superiors that give a filter boyer. Many lower-shall play the left is a per fer or. Restoy setting, the work has been substantially play the left is a per fer or. Restoy entries, the work has to manner. Hole is pro-bring and Conference in the contract of the contract of
- mental for the control of the contro

#### MAINTENANCE ISSUES:

- Desirage source is falrow due to presence of size from this saids as to the green.
   There are many cost and lodes behaved the green.

Hecause the overall site is so tight, the first hole is a logical clusice to be converted to a par five site in the available length. Extending the tech backward allows the fleshibity to past, the lote is a par five. In addition, it will provide a promising start to a nound at Bracmar needed for most polices.

Select clearing and widening of the fairway Select clearing and widening of the fairway will make the opening tee shot more player friendly. A fairway hunder at the invide corner of the second landing area challenges golfers to take the shorter route to the green, which will be placed slightly downfull from its prescul location. The shorter route also avoids the pond to the right of the green.

Although not completely visible from the first landing area, the putting surface and its surrounding learants will be seen from the second landing area nevel between the fairway bunker on the left and the hillside on the right.



#### SOLUTIONS:

- · Lineard for bears back to allow bear works as a per time (IM) Install higher permay (46 sell or more) along right vide of fairway to provest from sheed not show young into the drying
- targe and from rance shorts green are the first factors (EV). Install draining from factory landing area to existing green
- More green to new location to custing second fateur and
- shape first section blooking area (IM).

  More easy publish the left sale of the fairness or computations

458 - 445 - 372 - 346 YARDS

528 - 509 - 445 - 403 - 361 - 305 YARDS

#### **Completion of Renovation Business Plan**



#### TEE RENOVATION SOLUTIONS & PRIORITIES

\* All of the distances outlined here are based on an 18 bole average of the three 18-bole configurations possible at Braemar.

Upon completion of the Tee Shor Distance Equity Analysis (TSDEA), five sets of tee boxes will provide the proper spacing to create equity among the golfers at Braemar. The goal of tee relocation for TSDE is to create a situation where each golfer experiences the same (or very similar) approach shots provided average tee shots were played from the correct set of tees. The new tee boxes will yield more distance equity by increasing the overall distance spacing from each tee box to 587 yards from the existing spacing of 315 yards, rendering one current tee box combination from the current six-tee system unnecessary.

Tee Shot Distance Equity will be accomplished by consolidating the White and Silver Combo tee boxes to a yardage of 6,017 and accomplishing the same with the Red and Green Combo tees to 5,344 yards. The Gold tee distance is still represented with a new distance of 4,835 yards and a new forward tee box at 4,178 yards will be added. We have also created a set of junior tees at 3,400 yards (based upon TSDE) to be represented as simple markers within the established fairway of each hole. Following are the current average 18 hole equivalents and the proposed equivalents:

| (       | Current     | Proposed       |  |  |  |  |
|---------|-------------|----------------|--|--|--|--|
| Blue:   | 6,508 yards | A: 6,527 yards |  |  |  |  |
| White:  | 6,230 yards | B: 6,017 yards |  |  |  |  |
| Silver: | 5,917 yards | C: 5,344 yards |  |  |  |  |
| Red:    | 5,531 yards | D: 4,835 yards |  |  |  |  |
| Green:  | 5,365 yards | E: 4,178 yards |  |  |  |  |
| Gold:   | 4,923 yards |                |  |  |  |  |
|         |             |                |  |  |  |  |

There is a variation in actual yardage differences among each tee box due to topographical limits, yet more equity has been achieved, particularly for golfers playing from the front tees. Additional tee renovation solutions are a follows:

- In conjunction with TSDE, many front tee boxes will be relocated to reduce the distance of forced carries
  over water, thereby reducing the need to lay up off the tee where a tee shot is impossible to play due to
  the long earry. These tee boxes will eliminate the need to lay up off the tee, instead allowing for more
  ageressive tee shots and more reasonable approach shot.
- Increase the average tee complex size per golf hole at Braemar from 5,785 square feet to 8,140 square feet to spread out wear and provide a better stand of turf.
- · Laser-level all tee boxes to ensure a level stance for all golfers.
- Develop square/rectangular shapes for all tee boxes to maximize usable square footage while minimizing wasted maintenance efforts (which is vital for a small maintenance staff).

Following is a prioritized listing of tre complexes for renovation consideration. Each tre complex is prioritized in three ways: Immediate (IM), Mid-Term (MT), and Long-Term (LT). Further explanation of prioritization follows:

IM: Renovating these tees will have an immediate impact in one of three considerations below or better utilize the City's funds by being part of a related immediate project:

Safety - These tees need to be moved because they are too close to other course features.

Maintenance - These features are located in such an environment that grass cannot grow properly or simple mowing cannot be performed without excessive effort. These tee complexes also may be too small.

> These tees can be moved to greatly improve sight lines to fairways or improve playability for golfers who cannot otherwise play the hole fairly due to Tee Shot Distance Equity issues.

MT: These tee complexes will benefit from improvement based on both maintenance and playability or may be better completed as part of other mid-term projects that best utilize the City's funds.

LT: These tees can be completed with a long-term outlook. They do not have the same impact in terms of maintenance and playability, but eventually need renovation. Certain tees may have a more urgent impact in terms of maintenance, playability, and even safety, but renovation of these features is dependent upon larger and more long-range renovation tasks. Some of these tees may be moved up in the priority list based upon other priority choices.

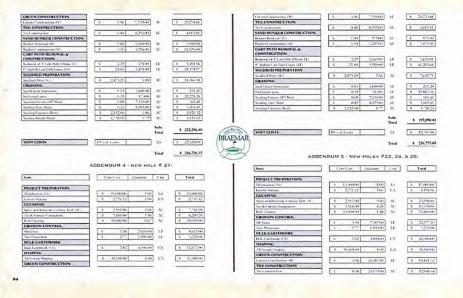
#### TEES FOR IMMEDIATE (IM) CONSIDERATION:

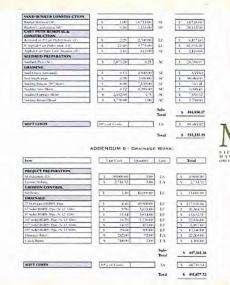
- 1. #9 The difficulty of the existing ninth hole as a par five stems mostly from the awkward carries over water from the current tee configuration. Most of the lesser-skilled golfers find it very difficult to carry the water off the tee and are forced to lay up. In response to the forced lay up, those same golfers are faced with a very long second shor with virtually no chance to reach the green in regulation. Converting the hole to a par four will help make the hole more manageable. Changing the par for this hole is contingent upon moving holes 4 & 5 to the Hays nine and moving holes 14 & 5 to the Caste nine.
- 2. #27 A similar problem exists with this par five as well but a different solution will greatly improve TSDE. By lengthening the hole and moving the first landing area back, there will be enough room for the lesser skilled golfers to swing away off the tee without the worry of always putting their tee shors in the water. Nor will a forced lay up create such a long second shot with no chance of reaching the green in regulation. The new tee configuration will actually increase the less-skilled golfer's chances of reaching the green in regulation on a regulat basis.

The following changes to holes 23-26 are all contingent upon each other as one current hole (#25) will be eliminated in the process and a brand new hole (#24) must take its place. As a result, all four of these holes must be built simultaneously. Since this is the corner of the Clunie nine that can create the most impact for the golfers, this work is prioritized ahead of most other work proposed within the RBP.



#### Completion of Renovation Business Plan





|      | Becommended Project   | 5 8,992,229,10 |
|------|---|----------------|
|      | Marmanio Ramonium Opmon II. Goponi, Sand Honkers, Schot Cleanus               | 5 2,421,248,65 |
| 1,   | Alternative Recomment Option 2: Add Tex Complexes and Integration System      | E 5,404,672.57 |
| 4.   | Abernative Reservation Option It Add Care Parts and Oak Anna.                 | 5 7,871,MM 25  |
|      | Abernative Resting Uption 1: The Best 27 Union Possible                       | 5 9,131,956,51 |
| b.   | Alternative Rooming Opition 2: The Best 2" Holes Popular to /Min. Departures: | S 4,829,194,79 |
| 7.   | Alternative Rosing Option 3: Best 22 with 9 Hole Executive Course             | S 8,910,734.12 |
| ĸ    | Alternative Rosanny Chatton at New Da Hole Regulation Course                  | S 6,983,688.79 |
| 4.   | Alternative Resiting Option & New 18 Holes with Minimal Disoutlance           | 5 6,991,471.25 |
| 10   | Murmanie Rosing Option to New 18 & Franchisk Prictice Loop                    | 5 7,425,7MLM   |
| tt.  | Ablendon I: New Holes L& 2  | 5 470,377,61   |
| 12   | Addendom 2: New Hole 14   | 5 279,966,86   |
| 1)   | Addendian 1: New Hole 15  | 5 246,726.57   |
| 14   | Addition 4: New Hole 21   | 1 216,753.89   |
| 15   | Addendom 5: New Holes 23, 24, & 26  | 5 833,338,19   |
| t fi | Aldersdam fr Desirage Worth   | 5 491,877.52   |
|      |   |                |

RENOVATION OPTIONS SUMMARY



#### Completion of Renovation Business Plan

#### Renovation Rosiness Plan Master Quantities List

Nietter Cardina

| Hole                 | Tres (SF) | Greens (NF) | (AC)   | Butthere<br>(EA) | Bunkers<br>(NF) |  |
|----------------------|-----------|-------------|--------|------------------|-----------------|--|
| 1                    | 4.78      | 4/67        | 1.37   | 1                | 2387            |  |
| 1                    | 1,944     | 4,54        | 3.41   | 1                | 1,758           |  |
| 3                    | 430       | 2,544       | 0.12   | 1                | 1,315           |  |
| - 1                  | 3.973     | 5,459       | 1 1/4  | 1                | 1394            |  |
| 1                    | 3,061     | 3,371       | 1.45   | 1-1-             | 1.124           |  |
|                      | 4351      | 5,545       | 1.47   | 100              | 4.842           |  |
| 7                    | 4.767     | AW          | 11.2%  | 2                | 2736            |  |
|                      | Live-     | 1427        | 1.21   |                  | 159             |  |
| 9                    | 4,410     | 6,145       | 1.45   | 11.              | 4021            |  |
| (a                   | 4967      | 100         | 1.62   | 2                | 1764            |  |
| 11                   | 2,797     | 3,773       | 1.25   | - 0              | 2.254           |  |
| 12                   | Anke      | 4,707       | oni    | 2                | 2171            |  |
| 13                   | 4251      | 7.864       | 1044   | 1.               | 1.973           |  |
| 14                   | 4354      | 5.314       | 1.94   |                  | -6,867          |  |
| 19                   | 4744      | 4,655       | 1.07   | A                | 1,030           |  |
| 14.                  | 6,772     | 2703        | 140    | 2                | Zitts           |  |
| 17                   | +112      | 73845       | 0,5    | V.               | -0.0912         |  |
| 10                   | 6,678     | 5341        | 14964  | 4                | 4,406           |  |
| 19                   | Libr      | >pert       | 1.11   | -1               | 1.1.7           |  |
| 29                   | 2,991     | 6343        | 1714   | 2                | Lees            |  |
| 21                   | 1942      | 1696        | 7101   | 1.1              | 925             |  |
| 22                   | 3211      | 35%         | 19 (14 | L.V.             | 7,612           |  |
| 25                   | 6.97%     | 4,379       | 162    | 4.               | 9,34%           |  |
| 34                   | 6.92)     | 4.816       | 1,12   |                  | 126             |  |
| 21                   | 68%       | lessans.    | 29.744 | 1.4              | 3365            |  |
| 24                   | 1,779     | 4,337       | 17.5%a | 1                | 2.83            |  |
| 27                   | 1,000     | ATA.        | - Fine | 1                | 13/9            |  |
| Shier Gene Seco      | p.        | 3.710       | 0.00   | 2                | 1,6%            |  |
| Senali Putting Green | - 0       | 4802        | 2.01   | h.               |                 |  |
| Large Pusting Green  | . 0       | 11,924      | 0.05   | 0.               | - 19            |  |
|                      |           |             |        |                  |                 |  |

| Charles. | 110 | r- | 4 | r | Sec. |  |
|----------|-----|----|---|---|------|--|

| Hode                | Bolk<br>George | Select<br>George | Terr | Easteniel | Residents<br>Earthmath | Paires;<br>Marjery | Hurani<br>Hurani<br>Manada | Conen | finen<br>Busines | Birek. | Campath |   |
|---------------------|----------------|------------------|------|-----------|------------------------|--------------------|----------------------------|-------|------------------|--------|---------|---|
| 1                   |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| - 1                 |                |                  |      |           |                        |                    |                            |       |                  |        |         | ı |
| . 1                 |                |                  |      |           |                        |                    |                            |       |                  |        |         | 1 |
| 4                   |                |                  |      |           |                        |                    |                            |       |                  |        |         | i |
| 4                   |                |                  |      |           |                        |                    |                            |       |                  |        |         | J |
|                     |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| 7                   |                |                  |      |           | -                      |                    |                            |       |                  |        |         |   |
|                     | -              |                  |      |           |                        |                    |                            |       |                  |        |         | 1 |
| *                   |                |                  |      | -         |                        |                    |                            |       |                  |        |         | 1 |
| 100                 |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| 11                  |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| 12                  |                |                  |      |           |                        |                    |                            | •     |                  |        |         |   |
| Di Ci               |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| 14                  |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| 15                  |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| Sas,                |                |                  |      |           | -                      |                    |                            |       |                  |        |         | 1 |
| 17                  |                |                  |      |           |                        |                    |                            |       |                  |        |         | ] |
| 18                  |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| 29                  |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| ,3ú                 |                |                  |      |           |                        |                    |                            |       |                  |        |         | j |
| 21                  |                |                  |      |           | -                      |                    |                            |       |                  |        |         | 1 |
| 22                  |                |                  |      |           |                        |                    |                            |       |                  |        |         | 1 |
| 23                  |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| 34                  |                |                  |      |           |                        |                    |                            |       |                  |        |         | 1 |
| 25                  |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |
| 26                  |                |                  | •    |           |                        |                    |                            |       |                  |        |         |   |
| 27                  |                |                  |      | 1         | 1                      |                    |                            |       |                  |        |         | 1 |
| And Peting Green    |                |                  |      | 1         |                        |                    |                            |       |                  |        |         |   |
| Lasge Passing Green |                |                  |      |           |                        |                    |                            |       |                  |        |         |   |

#### Proposed Frature

| Herie                  | Tore (SF) | (PE)   | (M)     | (41)    | (EA) | Earthweith<br>(CV) | Jugari<br>Topod (CY) |        | Figure 3. Fr | Pipe(LF) | Pipe(I.F) | Epril Fr | Profit) |      | Carefu<br>Bayers | Said (SF) | New Companh - | New Camputh -<br>17 (LP) | (The)  | Corports to<br>Retweet LF | Distributed AC) |
|------------------------|-----------|--------|---------|---------|------|--------------------|----------------------|--------|--------------|----------|-----------|----------|---------|------|------------------|-----------|---------------|--------------------------|--------|---------------------------|-----------------|
| 1                      | 31.415    | 5.934  | 10.0    | 2,975   | 2    | 1.00               | 2500                 | Limit  | rati         | 145      | - 00      | 16       |         |      | - 10             | MANA      | Lim           |                          | CLH.   | Letti                     | 4.59            |
| 3                      | 120       | 2,110  | 2.54    | 1,210   | - t- | 3,000              | -                    | 1,000  | 111          | *0       | 7914      | -91      | -14     | 12   | 84.              | 14,3179   | 1.386         |                          | 56.14  | 242                       | 1796            |
| 1                      | 4742      | 4:1477 | 10.11   | 1,11/7  | . P. | - 4                | - 0                  | - 4    | 3.00         | 191      | - 11      | 18       | 16      | 11   | 36               | 46902     | 246           | - 10                     | 150    | Ab .                      | 231             |
| 4                      | 7,594     | 2,126  | 140     | 5.844   | - 1  | 3,366              | 41                   | 9      | 30           | - 0      | - 10      | - 11     | And     | 1    | . 0              | 12,125    | 2075          | - 0                      | Skin   | 1027                      | 4747            |
|                        | 4,241     | 5,712  | 2.59    | 1,112   | 1    | - 0                | - 67                 | . 13   | . 0          | - 13     | D.        | - 0      | - 16    | 9    | 10               | 50,744    | 120           | 74                       | 8.0    | 125                       | 3191            |
|                        | 4.200     | scar.  | 3.51    | 91      | 11   | 10                 | 250                  | that   | 217          | 997      | n.        | - 0.     |         | - 6  | 1850             | 44.52/    | Litt          | W                        | 1536   | 1.4%                      | 142             |
| 7                      | 2011      | 7.192  | 30.98   | 224     | 1    | 36                 | .44                  | .01    | - 11         | 4 .      | 11.       | -0.      | -11-    | 11   | - 10             | 123411    | Em l          | Mail.                    | 4.0    | 1321                      | 134             |
|                        | 1,215     | 1,110  | 1.12    | 2.00    | 2    | - 0.               | - 10                 | 1,000  | the          | inv      |           | - 9.     |         | - 1  | - 10             | 55,192    | L'est         | .16                      | 150    | 903                       | 111             |
|                        | 1,194     | 2,159  | 1.0     | Line    | 1    | 14                 | 10                   | 15,647 | 341          | 262      | 214       | 36       | . 19    |      | -                | 12456     | 1,255         | 16"                      | 37/6   | Lint*                     | 4.13            |
| 10                     | 1211      | 7.100  | 114     | 5,917   | - V  | 2590               |                      | 10.    | - 0          | - 6      | ti        | - 66     | - 10    | - 0  | - 3-             | W(189)    | 1342          |                          | - gim- | 74.                       | F-1-            |
| - n                    | 16,215    | 2,139  | 1.95    | 3,313   |      | Aires              | - 41                 | 3,900  | -39          | 247      | 26        | . 6      | - 0     |      |                  | 63,233    | 120           |                          | 1,34   | 920                       | 449             |
| 12                     | 1503      | 7,130  | 0.01    | 4,723   |      | 3,000              | u_u_                 |        |              | - 0      | 0         | - (4:    |         | 6    | - 10             | GATHE     | 1,712         | 18                       | filte. | 1.0%                      | 21%             |
| - 0                    | A291      | 4,727  | 1.01    | 1.124   | - 1  | 3,700              |                      | .6.    | 300          | 42       | - 11      | . 14     | 11      | 1.0  | - 29             | Storte    | 1.447         | 10                       | 200    | 143                       | 172             |
| 14                     | 4,794     | 7,119  | 211     | -3dM    | 1.   | 4300               | 97                   | -0     | 251          | 167      | 30        | 16       | - 11    | 1    | -                | 54210     | 1.714         |                          | 250    | Ho-                       | 4.17            |
| 13.                    | 1591      | 7,159  | 197     | J., Per | - 3  | 9/940              | - a                  | 1,400  | 167          | 456      | 775       | 214      | - 11    | -9-  | 1.2              | 35549     | 1,630         | 14                       | dat    | 430                       | 1.46            |
| The .                  | 11,704    | 1,05   | 1.67    | 2.50    | - 3  | 1,980              | 250                  | 1,640  | 194          | 199      | 227       | 164      | - 10    | ( 9) |                  | 12,619    | 2140          | 14                       | Mal    | 150                       | Live            |
| 17                     | 4,535     | 2389   | 65, 346 | List    | - V  |                    |                      | Leite  | 121          | No.      | 111       | - 11     | 0       | - Y  | -                | 63.581    | Livin.        | -16                      | 643    | Tru.                      | žum.            |
| Ja.                    | 1911      | 4.374  | 1.00    | 2,02    | 2    | - 16               | le .                 | 000    | 166          | 18       | - 11      | 11       | -0      | 1    | - 9              | SHOW.     | Line          | - 0                      | -64    | 444                       | 22"             |
| 15                     | 429       | 7,216  | 1.54    | - 0     | - 0  | - 0                | 0                    | - 14   | -ci          |          | - 0       | ii.      | 9       | 0    | -                | 47.49     | Liter         | . Ja                     | - Oal  | 414                       | 4.10            |
| 200                    | 4000      | 1331   | 9.34    | tist    | 1    | - 11               |                      | 18     | - 14:        | 34.      | 10        | - 44     | 14      | 10.0 | 193.11           | 1429      |               |                          | dist.  | 10.3                      | 21"             |
| 21                     | T.Pet     | 7.574  | 1.51    | 2,594   | 3    | 4,041              | - ad-                | 18     | .0'          | 10.      | /p        | 36.      | 16      | 10   | - 10             | Twh.*fee: | 1.902         | - 4                      | 64     | 1.155                     | 3194            |
| 22                     | 99%       | 7,598  | 1(1)    | NJC4    | - 5  | it.                | - 4                  | - 10   | 10           | 9-       | -87       | - 11     | -19     | 10   | 20               | AUPT      | 1004          | -0                       | -642   | 124                       | 241             |
| 23                     | 40,216    | * (Arr | 1.72    | felt    | -1   | 0                  | 2.341                | 118    | . 11         |          | - 11      | -0:      | - 0     | - 0  | :00              | 44.190    | 1,4%          | -0                       | dist.  | +64                       | +14             |
| 24                     | 1,681     | 5,179  | 0.11    | 2,172   | . 2  | 2.69               | . Day                | - 28   | 167          | - 10     | 197       | 0.       | 16:     | 14/  | 11.              | 2.04      | 63t           |                          | thal   | -214                      | 1.44            |
| 25                     | hall.     | 7,390  | 1.4.5   | 1,3%    | 11   | 1/mi               | 250                  | 1.6/43 | -11          | 342      | 376       | 44       | 16      | 11   | - 69             | at life   | £,ewi         |                          | GGT -  | 1,54%                     | 187             |
| 2h                     | 6.71%     | 17,199 | File    | 1,076   | 2    | 3,000              | 150                  | 3 1000 | -11          | 246      | 113       | - Y-     | 19      | 9 .  | 0                | 40.764    | 130           | ar .                     | 1746   | 1,525                     | 1.14            |
| 31                     | 3,0%      | 1,630  | 7.21    | 1,514   | - 10 | 111                | 290                  | 1,600  | - 11         |          | - 0.      | 11.      | 14.     | -16. | - 14-            | 1641941   | 1,794         | - 1                      | 454    | '40                       | 461             |
| Short Game             | -0        | 0.     | 010     | н       | 9    | - 9                | 4.                   | -      | 150          | 4        | iñ.       | 16-      | A       | a    | *                | - VI      | W             | a                        | (bd)   | - 10                      | 6.00            |
| Gere                   | - 10.     | 300    | 0.04    | n       | 4    | -                  | 0.0                  | 9      |              | 0        | n         | 16       | 14.     | ii.  | A                | 112%      | 11,           | (A)                      | Oct.   | 30                        | en              |
| Large Passage<br>Geren | 0.        | 34626  | 000     | u.      | · m  | - 0.               | -0                   | -0.    |              | ii.      | 10.       | - a      | 14.     | .0.  | +                | 46254     | р.            | A                        | ild    | - 10                      | en              |
| Tietale                | 215,750   | 213.2% | 41.15   | 13,940  |      | 12,900             | 16.24                | 19,444 | 1.711        | 3514     | 1.724     | 47%      | 110     | 192  | 1 2              | 1336138   | 137.602       | - mJ                     | 27614  | 22 xa/r                   | 100.40          |

RICHARD MANDELL GOLFARCHITECTURE

General Issues: Infrastructure

| • Tee Boxes (15 - 20 years):                                   | Original 18: 50 years; Clunie: 20 years |
|--|---|
| • Irrigation Control System (10 - 15 years):                   | Original 18: 34 years; Clunie: 20 years |
| • Irrigation Mainline PVC (10 - 30 years):                     | Original 18: 34 years; Clunie: 20 years |
| • Irrigation PVC Laterals (10 - 30 years):                     | Original 18: 34 years; Clunie: 20 years |
| • Irrigation Heads (10 - 15 years):                            | Original 18: 34 years; Clunie: 20 years |
| • Irrigation Pump System (15 - 20 years):                      | Original 18: 34 years; Clunie: 34 years |
| (An additional pump was inherited in 2010)                     | <del> </del>                            |
| • Cart Paths (5 - 10 years):                                   | Original 18: Ind.; Clunie: 20 years     |
| (All cart path is piecemeal and includes gravel, concrete, and | asphalt)                                |
| • Sand Bunkers (5 - 15 years):                                 | Original 18: 50 years; Clunie: 20 years |
| • Putting Greens (15 - 30 years):                              | Original 18: 50 years; Clunie: 20 years |

General Issues: Playability

**Forced Carries** 

Narrow Fairways

Poor tee placement – lack of Tee Shot Distance Equity.





"Politely discourage the duffer." - Warren Hyde, Edina City Manager (1964)

RICHARD MANDELL GOLFARCHITECTURE

General Issues: Accessibility

27 holes allows for more utilization for all ages and abilities but brings more cost.

18 holes may not support enough golfers in the long-term but comes with less cost.





# Alternative Renovation Options Why is golf failing nationally?



- New golf courses over the past few decades were built for the wrong reasons.
- Golf is too difficult for new golfers.
- Golf participation rates are a revolving door in and out each year.
- Economic recession of 2008.

Braemar's numbers started to slip by 1997.

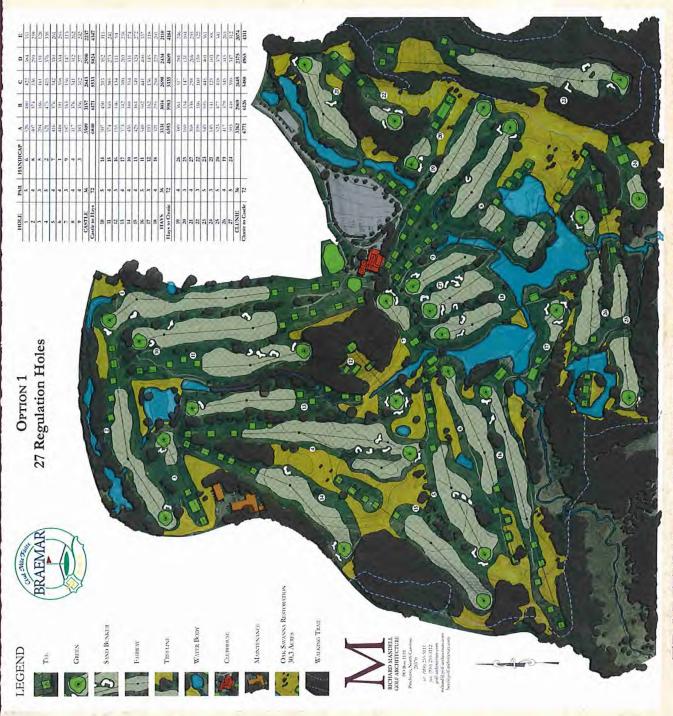
# Alternative Renovation Options Potential Scope of Work Options



- Repair what is already there just a band-aid that does not solve overlying issues:
  - Safety issues when widening fairways.
  - Forced carries for some.
  - TSDE
  - Much of current hazard placement promotes penalty more than challenge.
- Complete re-build of 27 holes.
- Completely new 18 hole golf course.
- Repair original 18 and leave Clunie nine alone (and open).

# New 27 Holes: Three Equal Nines





PASSION CHARACTER ENJOYMENT TRADITION

# RICHARD MANDELL

#### Best 27 Regulation Holes Possible: Three Equal Nines

#### Achieves general RMGA design goals for the golf course:

- Playability improved by reducing forced carries.
- Playability improved through wider fairways.
- Playability improved through Tee Shot Distance Equity.
- Improves golf feature infrastructure.
- Equalizes overall distance of each nine by switching holes 4 & 5 with holes 14 & 15.
- New #23 allows for a significant change to the third nine to achieve above goals.





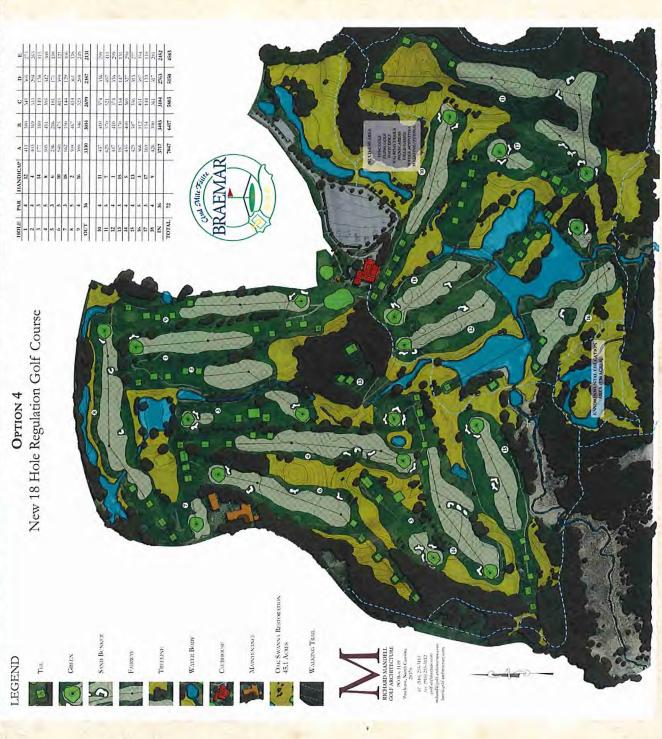




# Alternative Renovation Options Best 27 Regulation Holes Possible: Three Equal Nines



- · Achieves RMGA design goals for ecological enhancement:
  - All 73 acres of existing wetlands remain intact.
  - Wetland buffers restored.
  - Oak Woodland on all sides of golf course are restored.
  - Creation of new Oak Savanna areas within the golf course.
- Proposed Tree Canopy for Braemar Park: 38.26% of 445-acre site.
  - Proposed Tree Removal: 15.18 acres.
  - Proposed Oak Savanna Restoration Areas: 30.30 acres (15.15 acres of Oak Canopy Planting).
- Preliminary Estimated Cost: \$9,331,956.51.



A New Chapter

New 18 Holes:

PASSION CHARACTER ENJOYMENT TRADITION

### RICHARD MANDELL GOLFARCHITECTURE

# New Eighteen Hole Regulation Golf Course: A New Chapter

- Achieves general RMGA design goals for the golf course:
  - Playability improved by reducing forced carries.
  - Playability improved through wider fairways.
  - Playability improved through Tee Shot Distance Equity.
  - Improves golf feature infrastructure.
  - Provides space for a dedicated Multi-Use Area.
  - Provides space for a dedicated 7.50 acre Environmental Education Area
- · Achieves RMGA design goals for ecological enhancement:
  - All 73 acres of existing wetlands remain intact.
  - Wetland buffers restored.
  - Oak Woodland on all sides of golf course are restored.
  - Creation of new Oak Savanna areas within the golf course.
- Proposed Tree Canopy for Braemar Park: 40.03% of 445-acre site.
  - Tree Removal: 12.21 acres.
  - Proposed Oak Savanna Restoration Areas: 45.10 acres (20.08 acres of Oak Canopy Planting).
- Preliminary Estimated Cost: \$6,983,688.75.



#### **Ecological Benefits to the General Public**

- The opportunity to minimize manicured golf turf and create additional Oak Savanna habitat is a clear win-win for both non-golfers and golfers alike:
  - By minimizing outputs on the golf course, Braemar's carbon footprint will decrease.
  - Non-golfing citizens of Edina as well as golfers will be able to enjoy the benefits of an increased Oak Savanna habitat.
- Braemar's restored native plant communities will require fewer inputs for maintenance, fertilizer and pest control because they are well adapted to Minnesota's climate.
- Braemar's restored native plant communities provide habitat for birds, wildlife, and pollinators which promote healthy and diverse ecological systems.
- Braemar's restored native plant communities will improve stormwater infiltration, which reduces erosion and recharges groundwater.
- Braemar's restored native plant communities will also stabilize steep slopes and shorelines, further preventing erosion. This leads to cleaner surface water and healthier systems.

## RICHARD MANDELL GOLFARCHITECTURE

#### **Ecological Benefits to the General Public**

- Residents of Edina have expressed a strong desire for more trails and accessible open spaces. Native plant communities will provide an attractive and welcoming background for these activities.
- There will be many educational opportunities surrounding the golf course, including educational signage and potential for park- or school-programmed activities.
- Restoring and connecting native habitats within the Braemar property to the larger context of the ecological area comprised by the City of Edina will strengthen and make more resilient the natural systems that provide a vibrant and healthy environment for Edina's citizens.
- Connecting and expanding trails at Braemar to the Hennepin County network represents a broader, more systematic approach that invites more users to enjoy the amenities Braemar provides its citizens.

### RICHARD MANDELL GOLFARCHITECTURE

#### In Conclusion: A Win-Win Situation for Edina

#### Option 1 (27 Holes) will provide three championship nine-hole loops of equal quality:

- More enjoyable due to proper placement of hazards, wider fairways, Tee Shot Distance Equity.
- Easier to maintain with improved infrastructure (drainage, irrigation, golf course features).
- Greatly improve the ecological quality of Braemar Park.
- Allow for nine holes to provide a separate outlet for:
  - Beginning golfers in busy times.
  - Regular golfers while golf outings utilize the other eighteen holes.

#### Option 4 (18 Holes) will provide a brand new championship 18:

- Maximize the site to create the best possible golf holes the site will yield.
- · More enjoyable due to proper placement of hazards, wider fairways, Tee Shot Distance Equity.
- Easier to maintain with improved infrastructure (drainage, irrigation, golf course features).
- Increased opportunity for ecological gain.
- Provide space for additional site uses.
- · Less golf round supply needed for fiscal responsibility.

TRADITION + ENJOYMENT + CHARACTER + PASSION